

# Transit Improvement for Berkeley

Berkeley Planning Department

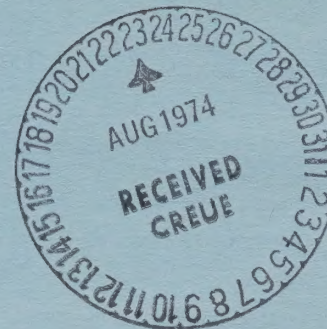
July 1974

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TO BERKELEYANS AND OTHER INTERESTED PEOPLE

This pamphlet from the Berkeley City Planning Department to Berkeleyans briefly describes proposals for transit improvement in Berkeley. Consultants will now analyze these proposals to determine how much they would cost, the degree of increased usage they would attract, how to pay for them, their environmental impact, and other factors. When we have this information we will hold public meetings on the proposals, and then we will make recommendations.

If at this point before we have begun evaluation work, you would like to comment or make suggestions, please do so. Have we left anything out? Are we on the wrong track? Should we be bolder? Do you want to spend more money for transit? Please let us know.



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### REASON FOR STUDY

"Street Widening" is a dirty phrase in Berkeley. It was proposed as the solution to the City's traffic problems during the mid-60's, causing a Berkeley citizens' revolt. As a consequence, the Planning Commission drafted, and Council adopted in 1969 a new Circulation Section to the Master Plan. The new section said in effect:

- 1) Major traffic on only certain streets so as to contain the bad effects of car travel;
- 2) But, no widening of those streets, so as not to encourage more and faster car travel, and so as not to eliminate the beauty of many Berkeley streets;
- 3) And, no freeways or similar new facilities, so as not to destroy the fabric of the City.

But, the streets designated to carry traffic were already choked with cars, and the pressure to close residential streets to through traffic threatened to place even more traffic on these major streets. Furthermore, the amount of travel done in Berkeley was increasing. So, the new section also said in effect: More and more people should travel without the aid of their automobile. This study to improve transit results from this Master Plan position.

In addition there are a large number of people who don't drive. Many of them use the existing transit system. Many others can't because it

doesn't provide them with the type of transportation they need, or because they are not physically able to use it. Another purpose of the study is to improve travel conditions for these people.

Thus, the purpose of this project is to recommend to the City Council and the regional Metropolitan Transportation Commission an improved transit service which would make it possible for many more Berkeleyans to lead a meaningful life without having to own an automobile, and which would make it possible for many others to leave their cars at home when they visit Berkeley.

### WHY TRANSIT SHOULD BE IMPROVED

A.C. Transit operates clean, shiny buses, and it has succeeded in attracting large numbers of new patrons to its transbay services. BART should further this trend. However, today A.C. carries fewer passengers in its non-transbay service than the old Key System did during its last year and at the time everybody thought it (the Key System) had just about reached the bottom of the barrel. BART will likely make a contribution to handling long distance East Bay travel, but its contribution to handling East Bay local travel will be minimum. East Bay travel, almost all of which A.C. and BART do not attract, is many times larger than transbay travel. As a consequence, transit's share of total travel within the East Bay Area is negligible, and will likely continue to be without changes made to its composition.

Travel in Berkeley illustrates this point. A.C. carries up to 50% of all trips going to San Fran-





cisco from Berkeley, but accounts for only about 8% of all trips made within, to, and from Berkeley.

It would appear that we should make substantial changes to East Bay transit service, if we expect it to carry a significant amount of East Bay travel, particularly in Berkeley. Based on experience elsewhere, we feel that conventional transit should be able to accommodate 25 to 40% of all trips made in Berkeley, a significant increase over the 8% now carried. We can do this by continuing to provide good connections for Berkeleyans to outside points, while improving the quality of service for people traveling purely within Berkeley, and for people coming into Berkeley from the outside. That means that we want a transit service in Berkeley that would make many places in Berkeley (including BART stations and long-distance A.C. bus routes) reachable from all parts of Berkeley.

#### TRANSIT IMPROVEMENT FOR BERKELEY

Transit improvement in Berkeley should occur on several fronts: route structure, vehicle design, transit vehicle preference and fare policy, to name several. However, the key to transit improvement is where and when the routes go, and how they relate to each other. It really doesn't matter if the bus or trolley is dirty or clean, is the proper design, or if it is free; if it does not first go where a person wants to go (either directly, or via a convenient transfer) when he wants to go, he won't use it. Once it does go where and when a person wants to go, then it is time to start worrying about the other things.

#### Transit Routing Improvements

In Berkeley people want to go to the University more than any other single destination, but their travel to all other places combined is much larger than their travel to the University. So, it would seem desirable to have a transit service that would take people (both Berkeleyans and those entering the City by BART or A.C.) to many places in Berkeley, but do so particularly well to the University. One of the reasons that A.C. Transit has not done very well in Berkeley is that it is not systematically designed to carry people around to a large number of Berkeley destinations. Furthermore, the existing system design does not recognize the overwhelming importance of the University for attracting travel from within and without Berkeley.

We have developed three proposals for improved transit routing in Berkeley. Two of the proposals use established and successful methods for making many different points reachable by transit. Proposal 1 uses the "grid" method of routing, which makes it possible for a person to get from any point in Berkeley to any other point by transferring once. Buses or trolleys must come often on every route so that transferring is easy. Proposal 2 uses the "timed transfer point" method of routing, which makes it possible to get to a large number of major destinations in Berkeley from all residential areas and outside points. This can be done by direct service, or via one "timed" transfer. The diagram in Figure 1 illustrates in simplified form the



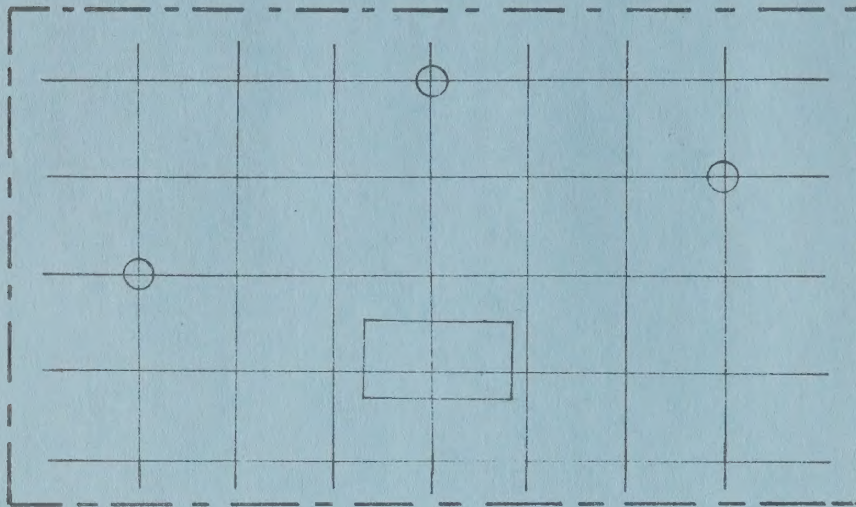


FIGURE 1

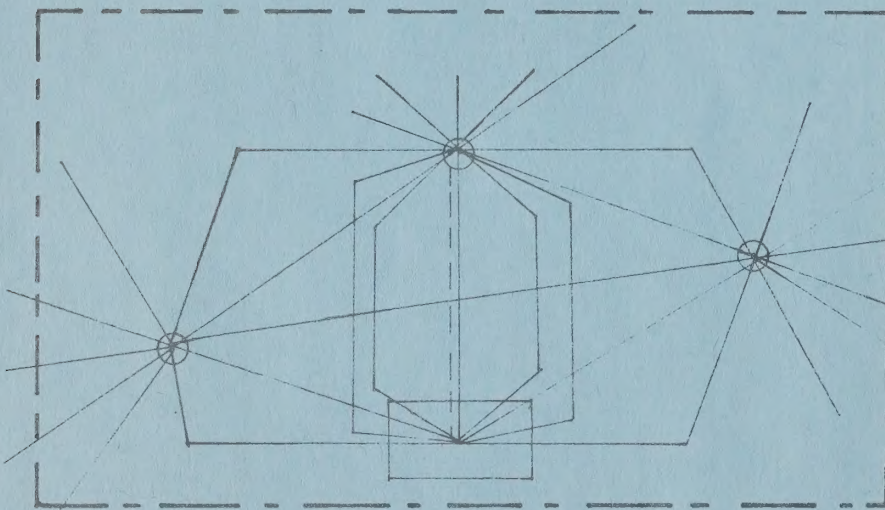
# SCHEMATIC DRAWING COMPARISONS OF TRANSIT ROUTING METHODS

## LEGEND:

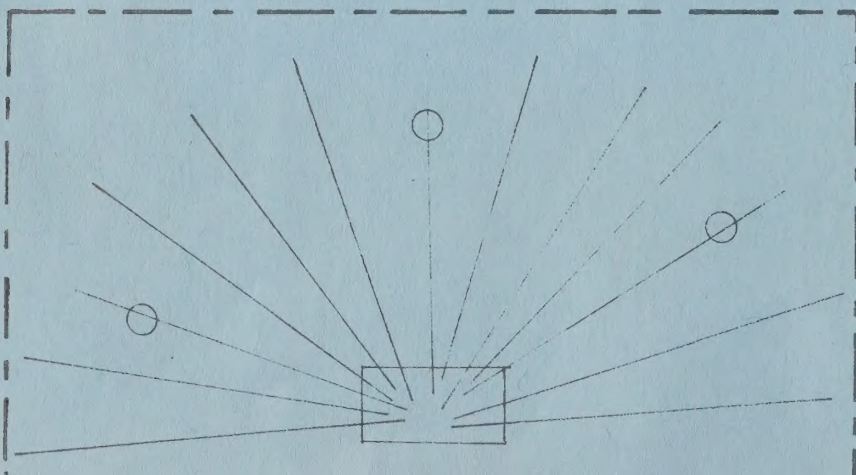
- Metro Area Boundary
- Transit Route
- Major Activity (i.e. — University or regional shopping center)
- C. B. D.



GRID (frequent service on all routes to make transferring easy)



TIMED TRANSFER  
(buses or trains on all routes arrive at same time at main interseing points to make transferring easy)



CLASSIC RADIAL (buses or trains operate to C.B.D. as fast as possible)





essential differences between these two methods. It also contrasts these methods to the downtown-oriented classic radial routing method, on which existing A.C. Transit service is based.

The third proposal does not use systematic change, but instead makes more modest changes to the existing routes in an attempt to make many more Berkeley destinations easily reachable. We will evaluate these routing proposals to determine how much they will cost, how much travel they will attract, and what impact they will have on the City.

#### Other Aspects of Transit Improvement

Routing changes alone, however, will not be enough to attract a lot of new transit users. Once a person finds that he can get from where he is to where he wants to go in a fairly direct manner, he will start thinking about other things: how much it costs, how reliable it is, how cramped it is, how clean it is, and other factors. The following additional transit improvement aspects will also be considered:

##### Special Service for Disabled

One of the most important new features common to all proposals would be a set of approximately 10 small buses with hydraulic ramps for the use by disabled persons, both young and old. No matter how well a transit system is laid out, it cannot be used by a person unless he or she has the ability to walk. Because it appears infeasible to load and unload wheel-

chairs from regularly-scheduled buses\* which should not dwell longer than a few seconds at any given stop, the special service is proposed. The 10 or more special buses would have a central dispatching service.

##### Bicycle Access to Transit

Bicycle access to transit services should also be encouraged. We do not feel that bicycles should be placed on board buses, but bicycles might be carried in special trailers or rear-mounted racks on sections of routes which traverse geographic barriers, such as the Bay or the hills. To that end, we propose that one hill route be equipped to carry bicycles as so described. In addition, BART's usefulness should be increased if people could safely store bicycles at BART stations. This safe storage should be free to the user. Finally, BART should carry bicycles during off-peak hours, as the London subway system does.

##### Vehicle Improvement

Better buses are needed. Some routes on all of the proposals should have smaller vehicles,

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\*It is possible that principal transit routes receiving special treatment could accommodate wheelchairs between certain stops, if those routes were redeveloped into modern, high-capacity streetcar lines with selective segregation from autos.







which are more maneuverable and perceived to be more attractive by the general public. Other routes with high passenger volumes and heavy loading and unloading along the route (particularly at major transfer points) should have a floor lower to the road, and wide doors which open automatically. Figure 2 shows a standard German city bus which has these features.

Small vehicles operated in the flexible services for the disabled must have hydraulic ramps of enough structural stamina to lift the very heavy electronic wheelchairs many times every day.

In addition we propose to explore whether electric vehicles on any route might increase transit's acceptance in the City.

Marin Avenue should carry a transit line to meet east-west travel demands for hill residents. Unfortunately, no transit vehicle can safely negotiate the grades except for a cable car. Therefore, we will determine how much a cable car would cost for Marin Avenue, and what contribution it would make.

Finally, some routes, particularly the east-west variety, might lend themselves to operation by vehicles owned by the driver.

#### Taxis

In the proposals, taxis will continue to play an important role. The current taxi operation in Berkeley will be evaluated to determine

whether supply of service can be expanded and whether the cost brought down.

#### Fares

Regardless of which alternative is adopted, certain fare policies will be explored. These will be directed at encouraging payment on a basis other than by the ride and at reduced fares.

#### Parking and Roadway Policies

The usefulness to the community of any of the transit proposals would be enhanced by actions to locate major activities at only the more transit-accessible points, and to actively discourage automobile usage at the same time. Several policies will be explored in this regard.

#### Shelters

All proposals require bus shelters, particularly at transfer points.



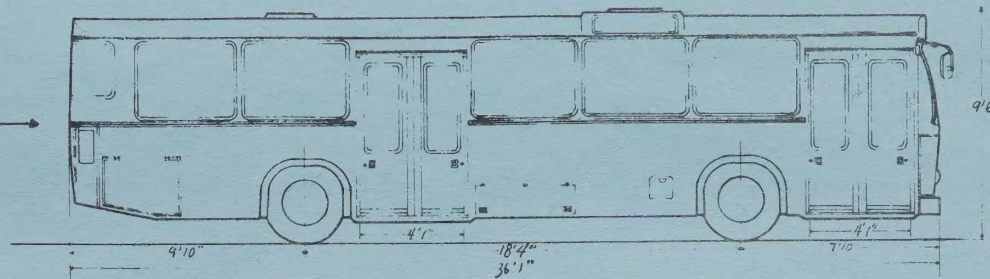




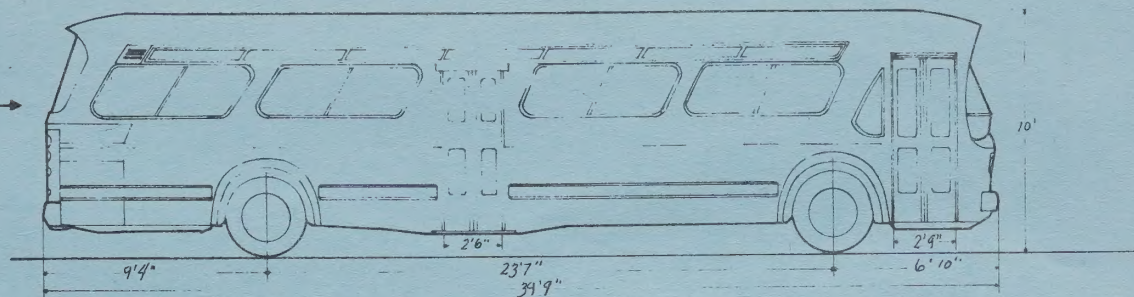
FIGURE 2

# COMPARISON OF TRANSIT VEHICLES

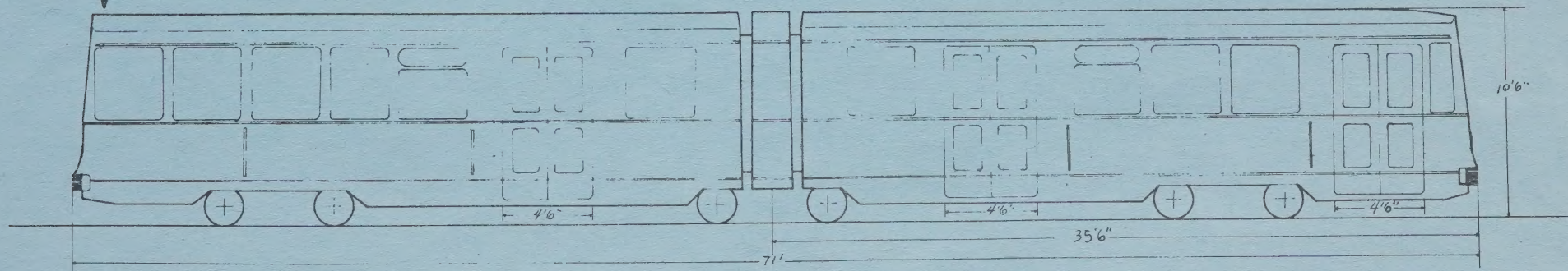
STANDARD  
GERMAN  
CITY BUS



STANDARD  
AMERICAN  
CITY BUS



NEW STREET CAR  
FOR SAN FRANCISCO







More Information

The preceding outline briefly describes the reasons for transit improvement in Berkeley and the types of improvements under consideration. If you desire more information or explanations of the proposals for improving public transit in Berkeley, please return this sheet with your name, address, telephone number and the appropriate box checked.

- ☐ I would like a copy of the full report "Three Proposals for Improving Public Transportation in Berkeley."
- ☐ I would like to attend a meeting where the proposals are being presented.
- ☐ I will help organize a meeting in my neighborhood where the proposals can be discussed.
- ☐ I would like to learn more about the proposals for improving transit in Berkeley.

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 Comments, suggestions and criticisms:

MAIL TO: Greg Thompson  
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 Berkeley, California 94704

Name: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 \_\_\_\_\_ Zip Code: \_\_\_\_\_



1. title
2. Transportation - Berkeley
3. Berkeley - Transportation

